

RCE - 08/07/06

10/602,742

**IN THE CLAIMS (There are no claim amendments in this RCE)**RECEIVED  
CENTRAL FAX CENTER

AUG 07 2006

1. (Previously presented) A process for the preparation of  $\text{H}_2\text{O}_2$ , wherein a first stage, electrolysis converts  $\text{H}_2\text{SO}_4$  into  $\text{H}_2$  and  $\text{H}_2\text{S}_2\text{O}_8$ , and in a second stage, said  $\text{H}_2\text{S}_2\text{O}_8$  reacts to form  $\text{H}_2\text{O}_2$  and  $\text{H}_2\text{SO}_4$ , wherein a membrane performs at least one selected from of a group consisting of: separation of said  $\text{H}_2$  from said  $\text{H}_2\text{S}_2\text{O}_8$ , separation of said  $\text{H}_2$  from said  $\text{H}_2\text{S}_2\text{O}_8$  and said  $\text{H}_2\text{SO}_4$ , separation of said  $\text{H}_2\text{O}_2$  from said  $\text{H}_2\text{SO}_4$ , separation of said  $\text{H}_2\text{O}_2$  from said  $\text{H}_2\text{S}_2\text{O}_8$ , separation of said  $\text{H}_2\text{O}_2$  and  $\text{H}_2\text{O}$  from said  $\text{H}_2\text{SO}_4$ , separation of said  $\text{H}_2\text{O}_2$  from said  $\text{H}_2\text{SO}_4$  and said  $\text{H}_2\text{S}_2\text{O}_8$ , separation of said  $\text{H}_2\text{O}$  from  $\text{H}_2\text{SO}_4$ , separation of said  $\text{H}_2\text{SO}_4$  from said  $\text{H}_2\text{S}_2\text{O}_8$  and any combination therein.
2. (Previously presented) The process of claim 1, wherein said  $\text{H}_2\text{SO}_4$  and said  $\text{H}_2\text{S}_2\text{O}_8$  is reacted with  $\text{H}_2\text{O}$  in the second stage.
3. (Previously presented) The process of claim 1, wherein said membrane comprises organic materials.
4. (Previously presented) The process of claim 1, wherein said membrane comprises inorganic materials.
5. (Previously presented) The process of claim 1, wherein said  $\text{H}_2\text{SO}_4$  from said second stage is recycled to said first stage.
6. (Previously presented) The process of claim 1, wherein said electrolysis is performed across an electrically charged membrane.
7. Please cancel this claim.

RCE - 08/07/06

10/602,742

8. (Previously presented) The process of claim 7, wherein said electrodes comprise at least one selected from the group consisting of: zirconium, hastelloy, ceramic, titanium and any combination therein.

9. (Previously presented) The process of claim 1, further comprising a step of distillation.

10. (Previously presented) The process of claim 9, wherein said distillation separates said  $H_2$  from at least one of said  $H_2SO_4$  and said  $H_2S_2O_8$ .

11. (Previously presented) The process of claim 9, wherein said distillation separates said  $H_2O_2$  from at least one of said  $H_2SO_4$  and said  $H_2S_2O_8$ .

12. (Previously presented) The process of claim 9, wherein said distillation separates said  $H_2O$  from at least one of said  $H_2SO_4$  and said  $H_2S_2O_8$ .

13. (Previously presented) The process of claim 1, wherein said second stage contains an excess of said  $H_2O$ , and wherein  
an aqueous concentration of said  $H_2O_2$  is generated.

14. (Previously presented) The process of claim 1, further comprising the addition of  $H_2O$  to said  $H_2O_2$ .

15. (Previously presented) The process of claim 1, wherein there is no vehicular transportation of said  $H_2O_2$ .

16. (Previously presented) The process of claim 1, wherein said  $H_2$  is utilized in a fuel cell to generate electricity.

RCE - 08/07/06

10/602,742

17. . (Previously presented) The process of claim 16, wherein at least a portion of said electricity is used for the electrolytic conversion of said  $\text{H}_2\text{SO}_4$  into said  $\text{H}_2$  and said  $\text{H}_2\text{S}_2\text{O}_8$ .

**Please cancel claims 18 through 34.**